The PHENIX Online Computing System

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Abstract

PHENIX, one of the two large experiments at the Relativistic Heavy Ion Collider (RHIC), has completed its first successful physics run in the summer of 2000. In this early stage, about 100,000 of the final 350,000 detector channels were instrumented.

The ONline Computing Systems (ONCS) Group is responsible for the configuration and control of the trigger and timing systems, the data acquisition components, and slow-control devices such as the High Voltage system. The ONCS system transfers the data from the event builder to an HPSS-based storage system, and provides a subset of the events to computer systems in the counting house for online monitoring purposes.

We will give an overview of the PHENIX online computing system, and discuss the hard- and software choices, our experience with the system during the first run, and the upgrade plans for the year 2001.